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# NORTHEASTERN FOREST EXPERIMENT STATION
# FOREST RECREATION RESEARCH

First Semi-Annual Report
October, 1963

## GENERAL

Since this is the first semi-annual recreation report and we have completed 4 years of work, a brief summary of the work to date seems appropriate.

The Warren Research Center was established in 1959 with recreation research as its primary duty. Hubert Burke arrived in August and set up the first office in a converted farm building on the Biddle Estate--now the Irvine Demonstration Forest, 6 miles west of Warren, Pennsylvania on the Allegheny River. Alan Wagar transferred from Region 2 soon afterward. Dick Shafer was at the Kingston, Pennsylvania center which was at that time attached to the Warren Center.

The recreation research of the center was reorganized into a project early in 1962 and Burke became project leader. Shafer transferred to Warren from Kingston. In July, Wagar was transferred to the Intermountain Station and Shafer to Syracuse to establish the cooperative project in recreation research. Wilbur LaPage transferred in from Region 4 via graduate work at the University of New Hampshire and Roger Rich transferred from the Southern Station.

## FOREST RECREATION AND WILDLIFE LABORATORY
## WARREN, PENNSYLVANIA

At this time, the Warren Project is still housed in a converted farm building but a new laboratory and office building is being built and is due for completion in May of 1964.

In the review of studies underway I shall include some "non-study" items which also have been a part of our research job.

1901-1, LaPage: This questionnaire study was started by Wagar and was reported upon recently in Research Paper NE-7 "Relationships between visitor characteristics and recreation activities on two national forest areas." When LaPage came we decided to continue this study on two state parks in Pennsylvania and two in New York. We have now requested the

Bureau of the Budget to extend our time limit and authorize us to use this same working plan and questionnaire on the Buckaloons Recreation Area.

The end result of these extensions is an "exploratory" study which is larger than most National sample surveys. This unfortunate state of affairs can properly be laid at the feet of our exhaustive and unbending review protocol. Although we might stand in line as well for yielding to the path of least resistance, there seems to be little advantage in attempting to revise an approved questionnaire study under the present review procedures. If we are to conduct proper survey research (without circumventing to the letter of FSM 1521.11) a little more latitude in the realm of exploratory studies, pilot studies, and pretests would seem to be essential. Certainly it would seem that the arbitrary limit of ". . . 10 or more persons" could be changed to 99 without destroying the "public safeguards" which this regulation attempts to provide, even though a change in the law would be required.

1901-2, LaPage: A long-time photo-record of vegetation change under recreation use at several locations on Chapman State Park in Pennsylvania. Possibly this would be a better study if we had some measure of the amount of use at these points. However, we plan to continue the study with no changes contemplated.

1901-3, Rich: A secondary analysis of data collected on seven recreation areas in the Northeast by O.R.R.R.C. The original program was tried but didn't give the desired analysis. Another program was written and "debugged". This gave a set of 331 contingency tables for each of seven sites based on 29 variables. This provided almost enough tables to paper a 17-room house. Preliminary analyses show that the seven sites are so different that it is doubtful if single factors can be grouped and analyzed for two or more of the sites.

This but repeats the well-known difficulties that can be expected when using second-hand data. We would not have wanted to miss such a valuable collection of data, nevertheless, to obtain the same information again we would prefer to design our own experiments.

The only gripe I heard concerning the study is the distance between research and analysis. All the sorting, etc., had to be done at New Haven, Connecticut.

We had the opportunity to pick up a card sort machine on surplus but were turned down. If we had had one, we could have saved considerable time and expense and would have been 6 months ahead in data analysis.

While we are griping we should also give credit to both Wilson and Peters at the Statistical Laboratory. They were up to their ears in the timber survey analysis and gypsy moth problem, yet they both contributed cheerfully of their time in getting this program to work. I am sure those fellows would appreciate a loosening of regulations to allow card sorting equipment in the lower echelons.

1901-5, LaPage: This study is an attempt to correlate vegetation reaction with degree of use. The study is located on the Buckaloons Recreation Area where records of the number of people in each party and length of stay are recorded man days use. The first season's use showed severe deterioration of herbaceous vegetation and some loss of grass within a limited area on the campsites. LaPage is analyzing the first year's data now.

1901-6, Burke: This started out as a simple study to make a field check of 8 species and 2 thicknesses of plank for use as picnic table tops. The test was to be based on a few rather easily measured factors. The difficulty of measurement became obvious so it was decided to use three judges and to judge the plank as (1) keep or (2) replace with a comment of (1) good (2) fair or (3) poor if the plank was kept. The statistical design got pretty fancy in all of the reworking. Then, the judges varied greatly in their estimates of plank condition. Extra judges were used. This may end up with a better estimate of subjective judgment on planks than of the actual condition of the planks. Only one plank was replaced at the end of the first season. LaPage is analyzing the variations in judgment.

1901-7, Burke: A study of preferences for picnic tables, parking, and fireplaces. Everyone has had a hand in this one: Shafer and Burke wrote this up originally as two studies. After several revisions LaPage took over and revised the analysis into a single study. This version was subjected to additional analytical and sociological review. One season's data were taken, but have not been analyzed. This study constantly reminds us of the power of extraneous factors. Even if we could satisfy the statisticians with perfectly replicated sites, one side of the area would still be closer to the river and some people would choose sites with all aspects of the physical environment subordinated to their desire to be next to friends who in turn may have chosen their site because it was across the camp ground from someone with whom they didn't care to be associated.

(Non-study), Burke: This "non-study" item reports the virtual completion of the Buckaloons Recreation Area on the Allegheny National Forest which has 40 camp sites and a 15-site picnic area. The campsite has a 7-unit flush toilet and the picnic site a 4-unit flush toilet. An interpretive trail a little over a mile long surrounds the area. A separate camping area for canoeists has been set aside and there is a boat landing. This area is now being turned over to the National Forest for administration but research will continue on the area.

(Non-study), Burke: The Irvine Demonstration Forest is a 600-acre area adjacent to the laboratory. A master plan and interpretive plans for this area have been developed since 1959. This area is also being transferred to the National Forest for administration, but cooperation between the Station and the Forest will continue in the further development of the interpretive program.

(Non-study), Burke: An analysis of the recreation resources and a guide for planning the development of recreation for Washington County, Maine, was done in 1961 and 1962, and a report is due shortly.

(Non-study), Burke: An analysis of recreation and a problem selection for the Northeast has been completed and has gone through one revision.

## COOPERATIVE FOREST RECREATION PROJECT
## SYRACUSE, NEW YORK

1902-1, Photo Choice.--The photo choice study which we discussed at Berkeley has been completed. As you may recall, the objective of this study was to measure, by use of photographs, the preferences of recreationists for picnicking, swimming, sanitation, and camping facilities on state parks in northeastern Pennsylvania. In the initial analysis of data, swimming area, fireplace, camping facility, and campsite spacing preferences were related to several sociological characteristics; the one characteristic related to all facilities was camping experience, i.e., whether the respondent was a camper or non-camper. Stratification of the data into camper and non-camper categories reduced the number of significant relationships by 50 percent. When campers were stratified further into "actual" and "assumed" camper

categories[1] there were no significant relationships between facility preference and any of the sociological characteristics investigated.

Study results indicated the following preference patterns:

1. A beach should have about 50 percent of the area covered with shade trees. A small proportion of recreationists wanted to swim in a natural stream.

2. Picnic area cover types should be diversified: low canopy (40 percent), scattered trees (40 percent), and high canopy (20 percent).

3. More than 85 percent of the respondents wanted flush toilets.

4. Large stone fireplaces and small metal fireplaces each accounted for approximately 40 percent of the choices. Between 14 to 20 percent of the park users had portable stoves or grills and did not require any further facilities.

5. Campers preferred campsites rather than cabins by almost 2 to 1 whereas non-campers had a reverse preference by almost 3 to 1.

6. About 2/3 of the campers were satisfied if they could camp 50 to 100 feet from other campers, and almost another third wanted to camp 250 to 400 feet apart. A small proportion of campers wanted campsites 10 to 15 feet apart.

7. Most respondents expressed a willingness to pay an appropriate user-fee for the recreation facilities they chose.

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1/ "Actual" campers were respondents who were camping at the time of the interview. "Assumed" campers were respondents who had camped during the past 10 years but were visiting the park only for one day at the time of the interview.

Any future study which employs a photo-choice survey method may wish to consider the following refinements:

1. Several sets of different pictures of the same facilities should be used in order to evaluate whether a choice is based on a "picture" or an actual preference.

2. Half of the respondents should be asked to select facilities that do not have an associated cost, in order to determine the effect of costs in influencing choice.

3. Colored versus black and white photos might be compared for differences in facility choices.

4. Respondents might be asked to rank choices of any one facility, rather than designate one selection within each facility. Resultant information may allow the manager greater latitude in the decision making process.

1902-2, Socio-Economic Characteristics of Adirondack Campers.--This study has been completed. Its objective waste determine if visitors to four randomly selected public campsites in the Adirondacks differed significantly in terms of either income class or resident zone. Each camping area had a different tributary zone pattern, but the income distribution patterns of campers was the same for all camping areas. Results suggest that camping areas in the Adirondack recreation complex have certain individual characteristics which effect their use patterns and future studies be directed toward exploring these possibilities.

1902-3, Effects of Sampling Location, Period, and Method on Survey Results.--This study will be conducted in the summer of 1964. The primary objective is to determine whether sampling period and sampling location significantly influence the sort of campers[2/] attracted to Adirondack camping areas. A secondary objective is to test whether less expensive survey methods adequately reproduce the results of a personal interview questionnaire. Sampling methods will be (1) personal interview, (2) handout questionnaire, and (3) mailed questionnaire. Sampling periods will be (1) June 1-30, (2) July 1-31, and (3) August 1-31. Sampling areas are (1) Fish Creek, and (2) Hearthstone Point camping area. This will be a cooperative study with the New York State Conservation Department, whose public campsites in the Adirondacks will be used; and the New

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2/ "Sort of camper" will be based on the answer to 10 questions.

York State College of Forestry, who will produce the questionnaire and provide technical assistance and forestry aid time in the analysis and presentation of the study.

1902-4, Roadside Screening Strips.--The primary objective of this study is to determine if "colored slide" interviews and "on-site" interviews designed to measure preferences for roadside screening treatments produce the same results. A secondary objective, obtained primarily as a by-product of the planned analysis of "on-site" interviews, will be to determine what roadside screening practices are most acceptable to certain segments of the public. This also is a cooperative study involving Region 7 of the U. S. Forest Service and the New York State College of Forestry.

The Syracuse unit has been fortunate in obtaining Cheri MacMasters as a part-time secretary. Cheri is majoring in Business Education at Syracuse University.

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